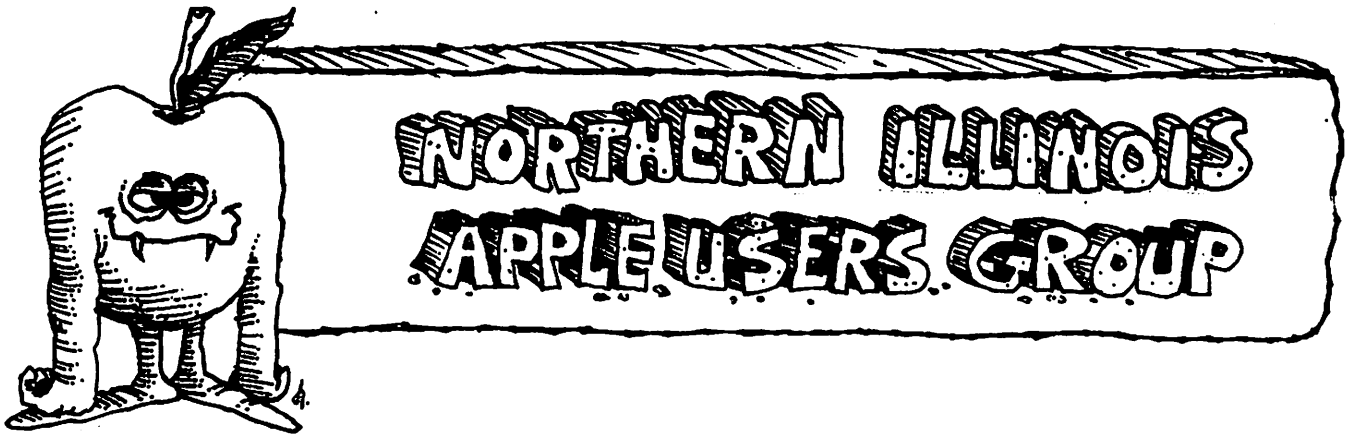


VOL. 3-NO.7

THE HARVEST

MARCH 1982

COMING MEETING DATES

March 6, 1982

April 10, 1982

IN THIS ISSUE

CLUB OFFICERS

President-
Eric Stral——— 312-885-1941
Vice Pres-
Mike Robins——— 312-593-2709
Treasurer-
Joe Sobel——— 312-398-1826
Secretary-
Mary Rosemann——— 312-338-4833
Librarian-
Jim Pfeiffer——— 312-289-7311
SIG Co-Ordinator-
Eric Stral——— 312-885-1941
Software Chairman-
Rob Stewart——— 312-537-0544
Hardware Chairman-
Paul Stadfeld——— 312-359-2378
Program Chairman-
Guy Lyle——— 312-438-7941

Steering Committee-
Ted & Mary Rosemann— 312-338-4833

Club Adresses:

MEMBERSHIP, etc.———BOX 787,
Palatine, Il, 60067

NEWSLETTER———Terry Tufts,
1015 S.Ridge Ave,
Arlington Heights, Il,
60005.
312-392-7735

BULLETIN BOARD———312-295-6926 daily as
available and after
10:30pm local time.

Membership is open to all. Dues are $12.00 annually with a one time initiation fee of $5.00 at the time of admission. An additional fee will be charged to cover the cost of mailing to foreign members. Membership applications are available from the club Secretary at the meetings or by mail.

MEMBERS AIDE

The members listed below have volunteered to answer questions from club members who need a 'HOT LINE' type answer that can be answered over the telephone. Please try to be brief when you call as a courtesy to them. Their names and phone numbers are listed below. The numbers after their names represent their special talents. PLEASE-NO CALLS at dinner time or after 10 pm.

Paul Stadfeld———312-359-2378 4-9
Guy Lyle———312-438-7941 4-9
Earl Allen———312-837-9259 1-9
Ted Rosemann
Mary Rosemann———312-338-4833 2,3
Joel Kurasch———312-677-8358 9,0
Leon Alexander———312-725-5309 8,9
Bob Noll———312-888-0808 1,9
Ken Nestle———312-620-7745 2,3
Herb Schulz———312-968-6927 0,
Jim Bradshaw———312-881-7000 7
Rich Lundeen———312-420-8468 2,3

Mach. Lang=1 Int. BASIC=2
Applesoft =3 Hardware =4
Arrays =5 DOS =6
Education Software=7

All of above=9
PASCAL=0 ,Z80 CARD=8(are not included in the 9 designation)

When numbers appear before a 9, the person is especially qualified in that area as well as in all other areas.

CORRECTIONS/CHANGES OF ADDRESS

Corrections/changes of address must be sent to the club secretary. Mailings are by bulk presorted third class mail. Any incorreect addresses will usually result in missed issues.

MARCH AGENDA

Mar 6, 1982.

10:00-10:30am Opening Remarks
(Eric Stral)
10:30-11:00am Fundamentals of the Apple
(Bill Osmer)
11:00-11:30am Statement of the Month
(G. Lyle)
11:30-11:45am Break
11:45-12:15am The Inspector
(Bill Sefton)
12:15- 1:55pm Ask Mr. Apple
(Mike Robins)
12:55-1:00pm Closing Remarks

EDITORIAL

by Terry Tufts

It seems that life never gets dull no matter how long you are in the computer business. If you are interested in computers for personal and educational purposes you won't want to miss "Computer Challenge", being held at Barrington High School on March 13 (see the news release for additional details). It looks like it is going to be oversubscribed so get your reservations in early if you plan to attend.

As usual we have a number of articles to challenge and bedazzle you. If you are getting into Pascal we have a review of books on the subject that you might like to have in your library. We also have a description of Huffin which is a program to convert Pascal files into standard Applesoft DOS files. We will reprint an article on the reverse process next month.

For you home brewers we have another article on keyboards and functions that can be added to the Apple.

For you thrifty penny pinchers we have another way to save money by reloading your Epson ribbon cartridge by purple fingers Fuller.(By the way if this doesn't appeal to you there are companies that will reload your ribbon cartridges for you at about a 50% saving. The only catch is that you must have a minimum of a dozen cartridges to make it worth their while).

As usual Marlys Newcome has scoured the publications for articles that may be of interest to you. She has been doing this for several months now. This is a very time consuming job and I think rather useful. If you agree or disagree please let us know.

By the way we would like to apologize to Marlys and to Peter Clarke for the transposition of several paragraphs in their February articles. We don't quite know what happened so we have sprayed the whole area for Gremlins and trust that the problem will cease. If there is anyone who needs the information, and can't reconstruct the articles, please give me a call.

I'm pleased to announce that several people have volunteered for some new positions with the Harvest. Harvey Marmel will be co-ordinating the distribution of articles from other club newsletters for transcription and will be contacting those of you who have volunteered your typing efforts. If you would like to help with this effort call Harvey at 674-1871. We also would like to publish more information about the SIG groups. Kurt Eberhardt has volunteered to co-ordinate this information. He will be calling the various SIG groups to get your announcements, meeting times and places and any other information that you wish to share with the membership. If your SIG has announcements etc. please call Kurt at 459-1237.

The membership expiry warning announcement was very effective. Many of you have written or called to tell us that our records were in error. We realize that the mailing list was not totally current and that some of you were paid up for the 1982 even though the labels showed 1981. If you are in this category please drop a note to our club secretary, Mary Rosemann, and she will correct the records. By the way the mailing list is maintained by the club secretary so if you wish to make any corrections changes etc. please direct the information to Mary.

I keep finding people who are not aware of Softalk, a free magazine that is devoted to the Apple. It keeps getting better and larger each month. They have recently announced that they will begin charging a fee for the magazine after one years free subscription. To obtain your free subscription send your name, address and Apple serial number to Softalk Circulation, 11021 Magnolia Boulevard, North Hollywood, CA 91601.

Floppy disk problems???? In the fall of 1980 Apple delivered a number of floppy disk drives that had were faulty. These should have been corrected by the dealers when they were found. It is possible that some were not. If you have disk drives with serial numbers approximately 96,000-123,000 and 132,000-148,000 and you are having disk problems it is possible that you should return it to your dealer and have the collets replaced.

PERUSING THE PERIODICALS

by MARLYS NEWCOME

CREATIVE COMPUTING VOL 8 #2 FEB/82
* *

Author David Lubar
Title PAINTER POWER
Page 44
Subject A review of a graphics program.

Author Robert Plamondon
Title GRAPHS FROM YOUR APPLE II
Page 46
Subject A review of Scientific Plotter and Enhanced Paper Tiger Graphics

Author Alan Tobey
Title GRAFTRAX AND GRAPPLER
Page 52
Subject Text and graphics options for APPLE and Epson

Author Ross M. Tonkens
Title KINETIC COLOR GRAPHIC ART
Page 98
Subject Art for the APPLE II with Pascal

Author Mark Harris
Title AN APPLE SLIDE SHOW
Page 110
Subject Packing and unpacking graphics on your APPLE II

Author Kenneth M. Haley
Title PICTURE PACKER REVISITED
Page 116

Author David Lubar
Title PAGE FLIPPING
Page 128
Subject Switching from text to graphics

Author Mark Pelczarski
Title THREE-DIMENSIONAL APPLE GRAPHICS
Page 134

Author Richard Kaplan
Title GRAPHICS CONVERSION FOR THE TRS-80,APPLE,AND PET
Page 148

This issue contains reviews of several printers and other articles about computer graphics

INTERFACE AGE VOL 7 #2 FEB/82
* *

Author Cary Clark
Title APPLE-ICATIONS
Page 44
Subject Sound generation on the APPLE

Author Jim Tallman
Title UNDERSTANDING HEXADECIMAL NUMBERS
Page 93

SOFTSIDE VOL5 #4 JAN/82
* *

Author "J"
Title THE SENSUOUS PROGRAMMER
Page 15
Subject Some suggestions for finding bugs in a program

Author Jon Voskuil
Title MICROTEXT 1.1
Page 21
Subject A printout module for the word processor of last month.

Author Joan G. Tuckenbrod
Title COMPUTER GRAPHICS
Page 25
Subject Patterns with vertical reflection

Author Randy Hawkins
Title GAMBLER
Page 27
Subject Several games of chance that can be played by up to 4 people

Author Bruce Muscolino
Title WORD WARS
Page 67
Subject A game to see who can form the most words from the letters displayed

Author William J. Ryan
Title APPLE CAPTURE
Page 74
Subject A game to find apples in an orchard

COMPUTE! VOL4 #1 JAN/82
* *

Author Richard Mansfield
Title THE BEGINNER'S PAGE
Page 22
Subject Loops

Author Gregory R. Glau
Title INVEST
Page 26
Subject A program to check an investment in real estate

Author M. R. Smith
Title ANTI-HESITATION PROGRAMMING: A TUTORIAL ON ARRAYS
Page 54

Author Glenn M. Kleiman and Mary M. Humphrey
Title LEARNING WITH COMPUTERS
Page 79

Author Chris Dupuy
Title MORE APPLE HI-RES SHAPE WRITER
Page 86
Subject A program for cassette owners allowing them to save shapes

Author Joseph Wrubel
Title LOWER CASE WITH UNMODIFIED APPLE
Page 89

MICRO THE 6502/6809 JOURNAL #44 Jan/82
* *

Author Charles F. Taylor, Jr.
Title SWEET-16 REVISITED
Page 25
Subject In this article, the Sweet-16 instruction set is described and programming hints, using a macro-assembler, are presented

Author Victor R. Fricke
Title PASCAL TUTORIAL: PART 3
Page 85
Subject Programming Pascal vs. BASIC

Author Robert Walker
Title RELOC
Page 95
Subject RELOC allows the APPLE Pascal text editor to be used with DOS 3.3 to more easily edit BASIC text files.

Author Robert Walker
Title APPLE PASCAL TEXTFILE LISTER
Page 100
Subject A utility program to produce neatly paged output with titles and numbered pages

Author Arnie Lee
Title ELEMENTARY PASCAL INTERNALS
Page 103

BYTE VOL7 #1 JAN/82
* *

Author Greg DeWilde
Title ACCIDENTAL RESET PROTECTION FOR THE APPLE II
Page 234

Author Ned W. Rhodes
Title THE APPLE TALKS WITH THE DEAF
Page 366
Subject With the hardware and software described in this article, you can pick up a phone and wish a deaf friend a good day.

Author David Cortesi
Title AN EFECTIVE TEXT-COMPRESSION ALGORITHM
Page 397
Subject Reduce the size of text files by identifying common pairs of letters.

PERSONAL COMPUTING VOL6 #2 FEB/82
* *

Author Jason Birmingham
Title COMPUTERS INVESTIGATE THAT RESEARCH RAPIDLY, RELIABLY
Page 45
Subject Use the more than 950 on-line bases to access information

Author David James
Title UNDERSTANDING MASS STORAGE: WHAT'S IN IT FOR YOU?
Page 65

POPULAR COMPUTING VOL1 #4 FEB/82
* *

Author Peter McWilliams
Title AN INTRODUCTION TO WORD PROCESSING
Page 17

Author William Barden,Jr
Title WHAT LANGUAGE IS BEST FOR YOU?
Page 68

Author Elizabeth Hughes
Title A BEGINNER'S GUIDE TO BASIC PROGRAMMING: PART I
Page 78
Subject A step-by-step tutorial on planning, building, and debugging a BASIC program.

APPLE ORCHARD VOL2 #4 WINTER81/82
* *

Author Ken Keen
Title A REVIEW OF EXPEDITER II
Page 56

Author Mark L. Crosby
Title SINGIN' THE DISK I/O BLUES
Page 63
Subject Some guidelines for keeping your own disk drive in tip-top shape.

CALL A.P.P.L.E. VOL4 #9 NOV-DEC/81
* *

Author Jonathan M. Levine
Title THREE MACRO-ASSEMBLERS
Page 9
Subject A review of MAE,ALD System II, and BIG MAC

Author Dr. Wo/Washington Apple Pi
Title DOS TO PASCAL FILE CONVERTER: PUFFIN
Page 13

This issue contains some Word Processor evaluations, more notes about the DOS mover program and a review of USING 6502 ASSEMBLY LANGUAGE.

ERRATA-These were incorrectly listed in last months Harvest

NIBBLE VOL2 #8
* *

Author Robert R. Devine
Title INTE-SOFT CONNECTION-IV
Page 91
Subject The last in a series of articles on changing Integer programs to Applesoft

Author David E. Lieberman
Title PASCAL POINTERS AND PRINCIPLES
Page 111
Subject Expand Pascal EXEC File capability and read DOS 3.3 directories from APPLE Pascal

This issue contains many other tips, techniques and utilities, plus reviews of 64k card, Micro-Sci's Big Disks, The Voice and several more programs for personal finance management.

PASCAL PRIMER

by George Teas

(Reprinted from THE APPLE-DILLO, Austin, Texas, Sept., 1981)

This article will be dedicated to reviewing the numerous books available for learning PASCAL which I personally read and used. I say this to indicate that the views are my own, and prejudiced toward non-academic, beginning use, not technical competence or accuracy. Books will be reviewed in order of difficulty —easiest first.

APPLE PASCAL: A Hands-On Approach
by Luehrman & Peckham

An excellent beginner's book which is written specifically for the Apple II. It forces the new PASCAL user to work with his Apple as he progresses through the book. Written for beginners, it is useful down to the junior high school level (I understood this one). 430 pages.

BEGINNER'S GUIDE FOR THE UCSD PASCAL SYSTEM
by Kenneth L. Bowles

Another good tutorial on USCD PASCAL, which goes into more detail on the E(ditor and F(iler. The best discussion of the C(ompiler commands, files, records and error messages. Shows actual pictures of what the screen looks like when options are selected or errors occur. 196 pages.

INTRODUCTION TO PASCAL
by Rodney Zaks

A comprehensive discussion of the PASCAL language itself. Lots of examples. Written about the freshman/sophomore level. Includes discussion of pointers and files. (A good complement to APPLE PASCAL: A Hands-On Approach). 400+pages.

A PRACTICAL INTRODUCTION TO PASCAL
by Wilson & Addyman

A concise guide to the language. An excellent reference if you already know the language and a good place to learn if you are familiar with other structured languages. Deals with PASCAL in general, not necessarily the UCSD

implementation. A valuable tool. I learned on this one before the above books came out. Written at the junior/senior college level. 147 pages.

PROBLEM SOLVING USING PASCAL
by Kenneth L. Bowles

A good introduction to TURTLEGRAPHICS. Not a good first text, but a good follow-through. Came with PASCAL 1.0 at purchase. 563 pages.

THE PASCAL HANDBOOK
by Jacques Tiberghien

An excellent reference book. Dictionary style format. Includes information on UCSD PASCAL. Alphabetized Reference, not a learning tool. Companion volume to INTRODUCTION TO PASCAL by Zaks. 473 pages.

PROGRAMMING IN PASCAL
by Peter Grogono

Scholarly, in-depth text. PASCAL in general. Written at college senior, post-graduate level. Gets into linking, pointers, 'trix-record' and other areas. Was used as Texas University course text. 363 pages.

PASCAL - AN INTRODUCTION TO METHODICAL PROGRAMMING
by Findley & Watt

Only if you must. PASCAL in general. Difficult for beginners to understand. 306 pages.

PASCAL USER MANUAL AND REPORT
by Jensen & Wirth

Easy to understand if you wrote the compiler. Excellent reference if your mind is totally disorganized. Comes with PASCAL 1.1 (came with 1.0). 167 pages.

* * * * * * * * * * * *

APPLE TRICKS

by Craig Crossman
(Reprinted from THE ABACUS II, February, 1980)

Here's another 'Apple trick'. This one was given to me by Craig Vaughn from Peripherals Unlimited in Signal Hill, California. This is a way to make your Applesoft programs UNLISTABLE It is really a clever method and quite easy to do.

First, write or load the program you wish to make unlistable. Next, place a REM statement on line 0. Next, type in POKE 2049,1. Try to list your program and see what happens. Then try running it and the program should execute as normal. You just won't be able to list it.

It would have been nice to just SAVE it to the disk, but unfortunately DOS corrects that byte to its correct format. However, there is a way to overcome that, too. After you have typed in the POKE statement, get into the monitor by typing CALL - 151. Next type AF.B0. You should see two sets of two numbers. They represent one byte past the last byte of your program. Note these, remembering that the first two numbers represent the low order byte and the last two are the high order byte. For example, if after typing the above you see 90 08, the actual location is 0890(in hexadecimal). Now, for our example you would type

BSAVE program name, A$800,L$90

You have now saved the Applesoft program as a binary file.

To actually run the program, you would simply first make sure you are in Applesoft. Then BLOAD the binary program. It will be loaded as an Applesoft program Don't Brun it — that doesn't work. Just type RUN. If you try to list it before running, it won't list, but it will still run. In most cases, the program will also self-destruct upon completion of execution.

* * * * * * * * * * * *

COMPUTERS IN THE NEWS

Wall Street Journal reports:
1. Apple Computer will spend $25 million to expand its manufacturing and test plant in Singapore.

Plans call for the plant, which opened in July, to expand to 273,000 square feet from 133,000.

2. Commodore International Ltd. announced at the COMDEX Show that it plans to make a personal computer that can emulate those of IBM, Tandy and Apple that would sell for less than $1000.It will be their response to the lack of portability of software between vendors of different hardware.

KEYBOARD FEATURES IN THE ONE PIECE!

By Chuck Thomka

A re-print from;
South Bay Apples Computer Club News
July - August 21, 1981

Many times you guys and gals have read through some very interesting (at least I though so) articles of mine, concerning added features for the Apple keyboard. Then after you've gotten all fired up, ready to do the etch cutting or building the needed circuits to bring those niceities to your very own keyboard you find out that you have the older "one piece" keyboard, and all those nifty things were not meant for the likes of you. Well, now it's not that I've forgotten you or don't care about you, but the truth of the matter is that I only got into those modifications to make my Apple nicer, and my Apple has the "two piece" keyboard. But I decided to investigate the possibilities of that other keyboard.

If you have the Apple II Reference Manual (not the Red Book, but the smaller, newer book) turn to page 101. On this page you will find Figure 17 - Schematic of the Apple Keyboard. This schematic is, of course, the one piece keyboard. Now it turns out that there are quite a few things that can be done or added to that "one piece". First I was curious about all the undocumented matrix positions of the 90 possible positions shown. Here I've found there are many other usable key positions and the main purpose of this write-up is to make you aware of them. For instance did you realize that with a few wires brought out to an external keypad of your choosing you can have a Numeric keypad too! Or did you know that you too can have those elusive characters the underline, backslash, left bracket, and the control characters "US" and "FS". On the following drawing is all of the 90 positions detailed as to the character that will be interpreted if the corresponding X and Y wires are crossed. This chart that I've made is not present in the same manner as show in the Apple Reference Manual, for good reason. The reason is that thier drawing is too busy,. or cluttered. I am using my own method of illustrating code generation as to when "SHIFT" or "CONTROL" or "SHIFT - CONTROL" or none of the above is held at the same time when the indicated X and Y wires are crossed.

Now refering to my drawing you will notice that down the left column (X1) all of the numbers 0 to 9 are present. What's nice about these positions is that there is no change of code even if the SHIFT or CONTROL is held. This makes it very desirable for a numeric keypad. All that is necessary is to bring out wire X1 and all 10 of the Y wires (Y1 through Y10), connect them in an appropriate manner to some inexpensive keypad of your choosing.

Of course you can also bring out any additional wires, that you desire, to get other key positions on your external keypad, for example the RETURN key, or the "= -" key, or the "+ ;" key, but bear in mind that the SHIFT key will also be needed to be present if the "upper" positions are to be entered. Don't blame me, I didn't design the circuit, I'm only relating the facts.

With careful observation you will notice that at position X4,Y3 the shifted "O" is also the underline, and that Shift-Control O is "US". but when you compare that to the Apple Schematic, of page 101, the X4,Y3 position is unused! Instead Apple decided to use position X3,Y9 which has only O and Control O (SI), this is why the underline and US can not be entered from your normal, unaltered keyboard. Also you will notice similar inadequacies of Apple's selection for keys "K" (position X4,Y9) and "L" (position X4,Y5) instead of the more useful "K" at X4,Y4 and "L" at X4,Y5.

Knowing this information is necessary if you want to cut and jumper in the proper, more logical key positions. Exactly how to go about this is beyond the intent of this write-up for two reasons. One, I don't have an older keyboard to find exactly where to modify (any adventurous souls out there who want to lend me their keyboard for an evening?) and the second reason is that it really is so simple of a procedure that anybody already familiar with circuitry would have no trouble in finding the proper points, if they have the schematics, (but then brain surgery can also be a simple procedure to anybody ... etc.).

In some future article I'll be detailing, with schematics, of how you can add some relatively simple circuitry in order to get lower case code generation along with the characters Open & Closed curly parenthesis, Vertical bar, Curly cue, and Rub out. This modification, along with the relocation of keys K, L and O as mentioned in this write-up, will complete the ASCII Code generation of your keyboard.

	X1	X2	X3	X4	X5	X6	X7	X8	X9	Y
NORM	8	FF	0	9	6	5	DC2	ENQ	NUL	Y1
SHFT	8	FF	0	)	&	%	DC2	ENQ	NUL	
CTRL	8	FF	0	9	6	5	DC2	ENQ	NUL	
S & C	8	FF	0	)	&	%	DC2	ENQ	NUL	
NORM	4	CR	LF	I	U	R	E	W	Q	Y2
SHFT	4	CR	LF	I	U	R	E	W	Q	
CTRL	4	CR	LF	HT	NAK	DC2	ENQ	ETB	DC1	
S & C	4	CR	LF	HT	NAK	DC2	ENQ	ETB	DC1	
NORM	5	FS	P	0	Y	T	DC3	ACK	ESC	Y3
SHFT	5	FS	@	ul	Y	T	DC3	ACK	ESC	
CTRL	5	FS	DEL	SI	EM	DC4	DC3	ACK	ESC	
S & C	5	FS	NUL	US	EM	DC4	DC3	ACK	ESC	
NORM	1	GS	DEL	K	J	F	D	S	A	Y4
SHFT	1	GS	DEL	[	J	F	D	S	A	
CTRL	1	GS	DEL	VT	LF	ACK	EOT	DC3	SOH	
S & C	1	GS	DEL	ESC	LF	ACK	EOT	DC3	SOH	
NORM	2	VT	;	L	H	G	DC4	BEL	SOH	Y5
SHFT	2	VT	+	\	H	G	DC4	BEL	SOH	
CTRL	2	VT	;	FF	BS	BEL	DC4	BEL	SOH	
S & C	2	VT	+	FS	BS	BEL	DC4	BEL	SOH	
NORM	3	SO	.	,	M	V	C	X	Z	Y6
SHFT	3	SO	.	<	]	V	C	X	Z	
CTRL	3	SO	.	,	CR	SYN	ETX	CAN	SUB	
S & C	3	SO	.	<	GS	SYN	ETX	CAN	SUB	
NORM	0	SP	/	.	N	B	NAK	SI	STX	Y7
SHFT	0	SP	?	>	^	B	NAK	SI	STX	
CTRL	0	SP	/	.	SO	STX	NAK	SI	STX	
S & C	0	SP	?	>	RS	STX	NAK	SI	STX	
NORM	6	HT	P	L	M	CAN	SYN	DLE	ETX	Y8
SHFT	6	HT	P	L	M	CAN	SYN	DLE	ETX	
CTRL	6	HT	DLE	FF	CR	CAN	SYN	DLE	ETX	
S & C	6	HT	DLE	FF	CR	CAN	SYN	DLE	ETX	
NORM	9	BS	O	K	N	EM	ETB	DC1	EOT	Y9
SHFT	9	BS	O	K	N	EM	ETB	DC1	EOT	
CTRL	9	BS	SI	VT	SO	EM	ETB	DC1	EOT	
S & C	9	BS	SI	VT	SO	EM	ETB	DC1	EOT	
NORM	7	-	:	8	7	4	3	2	1	Y10
SHFT	7	=	*	(	'	$	#	"	!	
CTRL	7	-	:	8	7	4	3	2	1	
S & C	7	=	*	(	'	$	#	"	!	

NORM = shift and control keys are released
SHFT = only the shift key is pressed
CTRL = only the control key is pressed
S & C = both shift and control key are pressed
ul = underline
SP = space

UNCLASSIFIED ADS

HELP WANTED

Secretary, 60 WPM who has access to a 48k Apple with 2 drives. A familiarity with music is an asset. Call Bob Ritz, 742-0381.

WANTED

Dumb Terminal with or without modem. Please contact Don Carter, 852-6240.

WANTED

Consultant to manipulate financial data using VisiCalc (TM). Call Jackie 291-9370.

HELP WANTED BY APPLE COMPUTER

Apple computer is opening a new Regional Support Center in Rolling Meadows to fill the needs of our growing dealer base. We are in the process of building a staff to meet Apple Computer's commitment to provide the highest quality support to our customers.

We are looking for qualified, highly motivated individuals for:

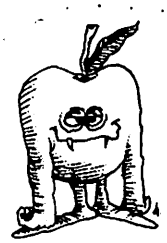
- Software/Technical Support
- Electronic Technicians
- Data Processing
- Finance/Credit
- Accounting
- Inventory Control
- Clerical/Secretarial
- Shipping/Receiving

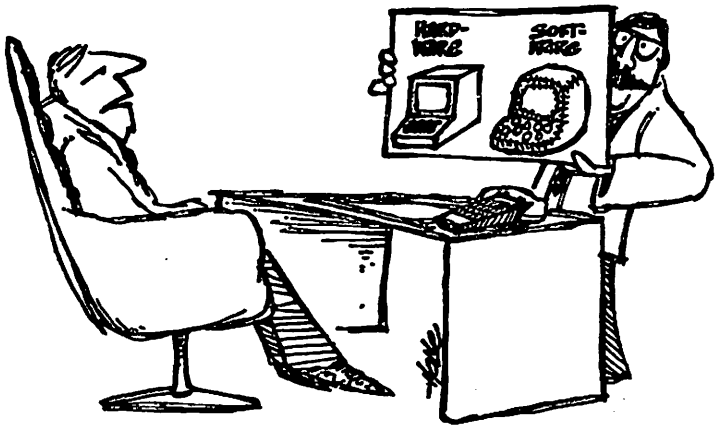
For immediate consideration send your resume to:

Apple Computer
Human Resources
5655 Meadowbrook Industrial Ct.
Rolling Meadows, Il 60008.

HELP WANTED

Typist wanted to type part time using the Apple. Prefer someone who is in the Arlington Heights area. Call Terry 392-7735.





"Now that you mention it, Cogswell, I've been meaning to talk to you about this documentation of yours."

* * * * * * * * * * * *

HUFFIN (Pascal to DOS text file conversion)

By Dana J. Schwartz

Reprint; The Washington Apple Pi Newsletter July/August 1981

After discovering that the DOS 3.3 RWTS (Read Write a Track and Sector) routines could access any of the blocks on a Pascal formatted disk, it became a simple task, knowing the Pascal directory and text file structures, to locate any such file and convert it to a DOS text file. This Higher-level language mUFFIN type program (HUFFIN) is the implementation of that concept.

Line 1 reduces HIMEM: by 2100 bytes to reserve space for the RWTS access routine and the buffers for the Pascal disk blocks. Lines 20-90 POKE this general purpose RWTS routine, and the associated IOB and DCT. See the DOS 3.3 manual, pp. 94-98, for a description of these data structures.

The screen display is set up in lines 100-130, followed by a request to the user for the number of drives (1 or 2) on the system. To 'hardwire' this number, add the line:

130 DR = n: GO TO 150

where n is a 1 or 2. Instructions are next issued to the user for disk insertion. Note that in a single drive system there will be several manual disk exchanges performed, and that to avoid possible human error the Pascal input disk should be write protected (especially during early testing!).

Line 170 asks for the name of the file on the pascal disk to be copied (without a volume name appended. e.g. DJS.TEXT). If no name is given, an abbreviated directory is displayed (GOSUB 4000) and the user is queried again. If a name is given, the directory is searched (GOSUB 1000) and, if found, the file type and size are verified. Lines 190-200 subsequently initialize the buffers and the DOS output file.

The conversion is performed in lines 210-320, prompting the single drive user when necessary. Characters are simply appended onto an output string (A$) until a CR (13) is encountered, at which time the string is sent to DOS. Lower case characters are not converted to upper case. Special processing is required for the DLE (16) and NULL (0) characters. (see the description of Text File Formats on p.266 of the Pascal Operating System Manual for an explanation of their use.) In addition, in order to entertain the user while Applesoft manipulates strings and memory, a window is provided to view the Pascal lines as they are written to disk.

Line 330-350 wrap up the session, closing the output file and restoring HIMEM:.

the subroutine at 1000 reads the Pascal directory into memory and searches for the named file (N$). The top and bottom blocks of the file are returned in TP and BT, respectively, and the file type is returned in TY. TY is set to -1 if the file is not found.

The subroutine at 2000 reads two Pascal blocks into memory (BK and BK+1). The subroutine at 2500 is used to place the corresponding Track/Sector pairs for each block (BL) in TR and S1/S2. Note that any given block is contained in two sectors on a single track. The routine at 3000 is the BASIC level access to the RWTS routine which was POKEd earlier. The 256 bytes of track TR, sector SE are read into the buffer address with high order byte BF (the low order byte was previously stored and does not change during execution.)

The subroutine at 4000 reads in the Pascal directory and displays the file names. It is followed by a general purpose error handler at 9000. This handler will attempt to CLOSE the output file if it is believed to be present, allowing an early CTRL-C to effect a partial file transfer.

```
]
1 HI =  PEEK (115) +  PEEK (116) * 256 - 2100: HIMEM: HI
10  ONERR  GOTO 9000
20  DEF  FN MOD(X) = (X / 256 -  INT (X / 256)) * 256
30 RWTS = HI:ER = HI + 17:IOB = HI + 18:DCT = HI + 36:BUF = HI + 40
40 TK = IOB + 4:SC = IOB + 5:HB = IOB + 9:G$ =  CHR$ (7):PA = 0:DR = 0
50  POKE RWTS,169: POKE RWTS + 1, INT (IOB / 256): POKE RWTS + 2,160: POKE
      RWTS + 3, FN MOD(IOB): POKE RWTS + 4,32: POKE RWTS + 5,217: POKE RWTS +
       6,3: POKE RWTS + 7,176: POKE RWTS + 8,1: POKE RWTS + 9,96
60  POKE RWTS + 10,173: POKE RWTS + 11, FN MOD(IOB + 13): POKE RWTS + 12, INT
      ((IOB + 13) / 256): POKE RWTS + 13,141: POKE RWTS + 14, FN MOD(ER):
      POKE RWTS + 15, INT (ER / 256): POKE RWTS + 16,96
70  POKE IOB,1: POKE IOB + 1,96: POKE IOB + 3,0: POKE IOB + 6, FN MOD(DCT):
      POKE IOB + 7, INT (DCT / 256): POKE IOB + 8, FN MOD(BUFF)
80  POKE IOB + 10,0: POKE IOB + 11,0: POKE IOB + 12,1: POKE IOB + 13,0: POKE
      IOB + 14,0: POKE IOB + 15,96: POKE IOB + 16,1
90  POKE DCT,0: POKE DCT + 1,1: POKE DCT + 2,239: POKE DCT + 3,216
100  CALL  - 936: VTAB 5: HTAB 16: PRINT "HUFFIN": VTAB 9: PRINT " PASCAL TO
      DOS TEXT FILE CONVERSION"
110  VTAB 13: HTAB 10: PRINT "BY DANA J. SCHWARTZ": HTAB 10: PRINT "
      WASHINGTON APPLE PI": VTAB 18: INVERSE
120  PRINT "                                                  ": VTAB 23: PRINT
      "                                                 ";: REM 40 SPACES EACH
130  NORMAL : VTAB 19: POKE 34,18: POKE 25,22: IF DR <  > 0 THEN 150
140  INPUT "HOW MANY DRIVES YOU GOT?  1 OR 2? ";I$: CALL  - 936:DR =  VAL (I$)
      : IF DR <  > 1 AND DR <  > 2 THEN  PRINT G$;G$;: GOTO 140
150  POKE IOB + 2,DR: IF DR = 1 THEN  PRINT "INSERT PASCAL DISK (WRITE
      PROTECTED)": GOTO 170
160  PRINT "INSERT DOS DESTINATION DISK IN DRIVE 1  INSERT PASCAL SOURCE DISK
      IN DRIVE 2"
170  PRINT : INPUT "FILE (<CR> FOR DIRECTORY):";N$: IF  LEN (N$) = 0 THEN
      GOSUB 4000: GOTO 100
180  GOSUB 1000: IF TY <  > 3 OR BT - TP < 4 THEN  PRINT G$;G$;"FILE EMPTY,
      NOT TEXT, OR NOT FOUND": GOTO 170
190  CALL  - 9360:B1 =  INT (BUFF / 256):B2 = B1 + 1:B3 = B2 + 1:B4 = B3 + 1:
      BK = TP + 2: GOSUB 2000
200 A$ = "": PRINT  CHR$ (4);"OPEN ";N$;",D1":D$ =  CHR$ (4): PRINT D$;"NOM O"
210  PRINT D$;"WRITE ";N$
220  FOR I = BUFF TO BUFF + 1023
230 C =  PEEK (I): IF C > 16 THEN A$ = A$ +  CHR$ (C): GOTO 290
240  IF C = 13 THEN  PRINT A$:A$ = "":Y =  FRE (0): GOTO 290
250  IF C <  > 16 THEN 280
260 I = I + 1:SP =  PEEK (I): IF SP < 33 THEN 290
270  FOR S = 1 TO SP - 32:A$ = A$ + " ": NEXT S: GOTO 290
280  IF C = 0 THEN I = BUFF + 1023
290  NEXT I
300 BK = BK + 2: IF BK = BT THEN 330
310 PA = 1: IF DR = 1 THEN  PRINT D$;"PR#0": CALL  - 936: PRINT G$: INPUT "
      INSERT PASCAL DISK AND SMASH RETURN";I$: CALL  - 936
320  GOSUB 2000:PA = 0: GOTO 210
330  TEXT : CALL  - 936
340  IF D$ =  CHR$ (4) THEN  PRINT D$;"CLOSE ";N$: PRINT D$;"NOMON O"
350  HIMEM: HI + 2100: END
990  REM
992  REM **********************
994  REM * FIND PASCAL FILE *
996  REM **********************
998  REM
1000 BF =  INT (BUFF / 256):TR = 0: FOR SE = 11 TO 4 STEP  - 1: GOSUB 3000:BF
       = BF + 1: NEXT SE
```

```
1010 NU =  PEEK (BUFF + 16):PT = BUFF + 32:LN =  LEN (N$)
1020  IF  PEEK (PT) <  > LN THEN 1100
1030  FOR J = 1 TO LN
1040  IF  PEEK (PT + J) <  >  ASC ( MID$ (N$,J,1)) THEN 1100
1050  NEXT J
1060 TP =  PEEK (PT - 6) +  PEEK (PT - 5) * 256
1070 BT =  PEEK (PT - 4) +  PEEK (PT - 3) * 256
1080 TY =  PEEK (PT - 2)
1090  RETURN
1100 PT = PT + 26:NU = NU - 1: IF NU > 0 THEN 1020
1110 TY =  - 1: RETURN
1990  REM
1992  REM **********************
1994  REM * READ 2 PASCAL BLKS *
1996  REM **********************
1998  REM
2000 BL = BK: GOSUB 2500
2010 BF = B1:SE = S1: GOSUB 3000
2020 BF = B2:SE = S2: GOSUB 3000
2030 BL = BK + 1: GOSUB 2500
2040 BF = B3:SE = S1: GOSUB 3000
2050 BF = B4:SE = S2: GOSUB 3000
2060  IF DR = 1 THEN  PRINT G$: INPUT "INSERT DOS DISK AND SMASH RETURN";I$:
      CALL  - 936
2070  RETURN
2490  REM
2492  REM ****************
2494  REM * BLK -> TR/SE *
2496  REM ****************
2500 TR =  INT (BL / 8):TMP = (BL / 8 - TR) * 8
2510 S2 = 2 * (7 - TMP):S1 = S2 + 1
2520  IF TMP = 0 THEN S1 = 0
2530  IF TMP = 7 THEN S2 = 15
2540  RETURN
2990  REM
2992  REM **************
2994  REM * CALL RWTS *
2996  REM **************
2998  REM
3000  POKE TK,TR: POKE SC,SE: POKE HB,BF: POKE ER,0: CALL RWTS
3010  IF  PEEK (ER) = 0 THEN  RETURN
3020  IF D$ =  CHR$ (4) THEN  PRINT D$;"PR#0": PRINT D$;"NOMON O"
3030  PRINT G$;G$;"RWTS DISK ERROR "; PEEK (ER): POP : POP : GOTO 9020
3990  REM
3992  REM **********************
3994  REM * PASCAL DIRECTORY *
3996  REM **********************
3998  REM
4000  TEXT : CALL  - 936:BF =  INT (BUFF / 256):TR = 0: FOR SE = 11 TO 4 STEP
       - 1: GOSUB 3000:BF = BF + 1: NEXT SE
4010 V$ = "":NL = BUFF + 6: FOR I = 1 TO  PEEK (NL):V$ = V$ +  CHR$ ( PEEK (
      NL + I)): NEXT I: PRINT V$;":":L$ = "":Y =  FRE (0)
4020 LN = 1:NF =  PEEK (BUFF + 16): IF NF = 0 THEN  PRINT " <NO FILES>":
      PRINT : INPUT "TYPE <CR> TO CONTINUE";I$: CALL  - 936: RETURN
4030  FOR I = 1 TO NF:ST = BUFF + I * 26 + 6:NL =  PEEK (ST): IF NL = 0 THEN
      GOTO 4050
4040  FOR J = 1 TO NL:L$ = L$ +  CHR$ ( PEEK (ST + J)): NEXT J: PRINT " ";L$:
      L$ = "":Y =  FRE (0):LN = LN + 1
4050  IF LN > 20 OR I = NF THEN  PRINT : INPUT "TYPE <CR> TO CONTINUE";I$:
      CALL  - 936: PRINT V$;":":LN = 1
4060  NEXT I: RETURN
8990  REM
```

```
8992  REM ******************
8994  REM * ERROR HANDLER *
8996  REM ******************
8998  REM
9000  IF D$ =  CHR$ (4) THEN  PRINT D$;"PR#0": PRINT D$;"NOMON O"
9010  TEXT : PRINT G$;G$;"ERROR "; PEEK (222);" AT LINE "; PEEK (218) +  PEEK
      (219) * 256
9020  POKE 216,0: IF (DR = 2 OR PA = 0) AND D$ =  CHR$ (4) THEN  PRINT D$;"
      CLOSE ";N$
9030  GOTO 350
10000  REM **********************
10010  REM *                    *
10020  REM *       HUFFIN       *
10030  REM *                    *
10040  REM *PASCAL --> DOS TEXT*
10050  REM *  FILE CONVERSION   *
10060  REM *                    *
10070  REM *BY DANA J. SCHWARTZ*
10080  REM *WASHINGTON APPLE PI*
10090  REM *                    *
10100  REM *     JULY 1981      *
10110  REM *                    *
10120  REM **********************
```

* * * * * * * * * * * *

MACHINE LANGUAGE SOUND ROUTINE

by Davie Lee Reed
(reprinted from Apple Pickers Inc - September 1981)

There are hundreds of ways to produce sound out of the Apple II speaker. Below is one routine I prefer to use because it is short and can be called from either basic (Integer or Applesoft) or machine language. You also don't need the Programmers Aid chip in the machine. It's also easily relocatable. Hence, it's flexible and transportable and easy to use!!!

```
                    0003 PITCH      .DE 200
                    0004 LENGTH     .DE 30
                    0005 NUM        .DE 1
                    0006 SPEAKER    .DE $C030
                    0007            .BA $300
                    0008            .OS $300
                    0009 START
0300- A2 C8         0010            LDX #PITCH          ;PITCH DESIRED
0302- 8E 1E 03      0020            STX SPITCH
0305- A2 01         0030            LDX #NUM            ;NUM OF TIMES TO DO NOTE
                    0035 LOOP
0307- A0 1E         0040            LDY #LENGTH         ;LENGTH OF NOTE
0309- 8C 1F 03      0050            STY SLENGTH
                    0055 LOOP1
030C- AD 30 C0      0060            LDA SPEAKER         ;CLICK SPEAKER
030F- AC 1E 03      0070            LDY SPITCH
                    0075 LOOP2
0312- 88            0080            DEY
0313- D0 FD         0090            BNE LOOP2           ;DELAY FOR PITCH
0315- EE 1F 03      0100            INC SLENGTH
0318- D0 F2         0110            BNE LOOP1           ;DELAY FOR LENGTH OF NOTE
031A- CA            0120            DEX
031B- D0 EA         0130            BNE LOOP            ;LOOP FOR NEXT NOTE
031D- 60            0140            RTS
031E-               0160 SPITCH     .DS 1
031F-               0180 SLENGTH    .DS 1
                    0190            .EN
END OF MAE PASS!
```

There are 3 parameters that can be changed by the user to produce different sounds. The 1st parameter is the pitch (the higher the value, the lower the pitch). The 2nd parameter is the number of times to do the note, and the 3rd parameter is the length of the note.
The locations of the parameters are as follows:

1. POKE 769, Pitch
2. POKE 774, Times
3. POKE 776, Length

By playing with this routine one can come up with interesting sounds.(Try POKE 790,31 !!!) With sounds and graphics becoming more and more important in the application programs these days, it's nice to have a sound routine to use.

```
0300- A2 C8 8E 1E 03 A2 01 A0
0308- 1E 8C 1F 03 AD 30 C0 AC
0310- 1E 03 88 D0 FD EE 1F 03
0318- D0 F2 CA D0 EA 60
```

WHERE DID MY OTHER BASIC GO?

By Chuck Thomka

A re-print from;
South Bay Apples Computer Club News
July - August 21, 1981

If you have a 16K RAM board installed in your Apple, as I do, then you also have noticed from time to time, usually when booting a disk, a message displayed that said it was loading BASIC into the RAM Card. If you have a regular Apple II the type of BASIC it will be loading is Applesoft, also known as Floating Point or Extended BASIC. On the other hand if you have the Apple II Plus the BASIC being loaded will be Integer, also know as Game BASIC.

This is a very nice feeling to know that you have the versatility of a multi-language Apple. However, have you ever been baffled, later, by the message: "LANGUAGE NOT AVAILABLE". When you knew that earlier the language was there! Which brings up the question "Where did my other BASIC go?".

Well, its because of a purposely intended function of booting 3.3 DOS. That at one point the RAM Card is enabled and address location $E000 is written with $00 (that's zero in hexadecimal). The RAM card is then disabled and the Apple returns to the "normal" (motherboard firmware) BASIC. Later, after booting process is over, when retrieving a program that requires a BASIC other than the "normal", ever present, firmware BASIC the Apple again turns on the RAM card and checks the data held in location $E000. Checking location $E000 is the method used to find out which language is present on the Language Card. If the data there is $20 then the alternate language is Integer BASIC. or if the data is $4C then the alternate language is Applesoft. BUT if the data is $00 (as (booting 3.3. DOS made so) then the language is assumed to be unusable.

Why the Apple Company wanted 3.3 DOS to do this trick (3.2 DOS doesn't) is almost anybodys' guess, but according to the extremely informative book by Don Worth and Pieter Lechner "Beneath Apple DOS (page 7-2) which reads "...forcing DOS to reload BASIC for every boot...added for version 3.3 to allow for eventual possibility that a language like PASCAL whose first byte of code just happens to match one of BASICs would cause strange results in DOS.

Now what can you do about it? Here's four different answers:

1.Scream and then go through the process of booting another disk with the right Hello program to reload RAM.

2.You can also restore the location $E000 so that the other BASIC will be available, here's how:
Enter the monitor (CALL -151)

Type C083 Return

Type C083 Return - these two accesses to location C083 will turn on the RAM Card and write enable it.

Type E000:20 Return (or E000:4C Return if the RAM card did/does have FP BASIC) - This will reinstall the proper code to RAM Card location $E000.

Type C081 Return - This will disable the RAM Card and put the Apples resident firmware langauge back in control.

Type 3D0G Return - to get back to BASIC.

Now go back to RUNing or LOADing that program you were attembting when you got the message "LANGUAGE NOT AVAILABLE".

3.You can modify the present 3.3 DOS in your APPLE to eliminate the problem so that any future INITs from the DOS, now in your Apple, will not cause a rewrite of loaction $E000. To do this: Enter the monitor (CALL -151))

Type BFD3:EA EA EA Return - This will put 3 NO OP codes in the offending area, which prior to the modification, should have been 8D 00 E0 (STA #$E000).

Type 3D0G Return - To get back to BASIC. Now any slave disk INITed, using this modification version of DOS, will have a patch to prevent the rewrite at location $E000, and hence avoid a forced reload of the RAM Card.

NOTE - for 32K Systems use 7FD3 instead of BFD3.

4.In order to patch DOS on the 3.3 disks you already now have, you must use a Disk Utility program that will allow you to read a specified track and sector, modify a location, and then rewrite the same track and sector back out to the disk.

The track and sector that you want to modify is track 0, sector 9. I'll leave the details of how to operate the disk utility up to you, since there are so many various disk utilities around. But what you are looking for is in that sector at the relative data locations D3 D4 and D5 is the data 8D 00 E0. (that's a STA #$E000, if you're wise to assembly language). Now change those locations (D3 through D5) to EA EA EA (that's three NO OPs) and then write the track 0, sector 9 out to disk again. You're done!
Now any time you boot with that disk no harm will come to location $E000 of the RAM Card, and any later INITs performed from teh DOS that came from THIS disk will also be equally modified.

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CHEAPER PRINTER RIBBONS?

by Don Fuller

EPSON MX-80 owners arise! I'm not sure just how many MX-80 (and MX-70) owners there are out there, but personally, I'm tired of paying an outrageous amount for the ribbon! At the current price of $14.95 + tax at your local printer ribbon store, and the way the MX-80 goes thru ribbons, I think I have found a way to ease the expense.

As you have probably noticed, on the EPSON ribbon cartridge is a diagram for installation and a place to mark the number of "EXCHANGE TIMES". What do you suppose that means? Well, I 'think' that the purpose of that was to inform the ribbon people just how many times the ribbon was replaced in that little ol' box! With that in mind, why not do it myself...!

First things first. If you'll turn off the printer and pop the ribbon cartridge out, you'll notice the usage seems to be on one side of the middle. Well, for starters, I turned the ribbon over! YEP! That was good for about 20 minutes of "Hey! Don't touch me!", but I learned something in the process. The ribbon can be replaced without buying a new cartridge! So? Read on...

If you'll proceed to your nearest RADIO SHACK and "if" they carry ribbons for their printers, you'll find that the Centronics 700 series ribbon can be a replacement! (cost about $4.95)

How to do all this? Now that you have your EPSON turned off and the ribbon cartridge in hand, start with a small pen knife and "pop" the snaps up and use the knife to gently (and I do mean gently) pry the top off the case. At the end with the protruding post, take your fingernail and move the little roller away from the roller with the post and lift the ribbon free. At the other end, pull the ribbon clear and 1. Turn the ribbon over and repack the case or 2. Replace the ribbon with the one purchased at the RADIO SHACK store.

If you are replacing the ribbon with a Centronics ribbon, make sure the MOBIUS LOOP is on the right side of the print head after replacing the cartridge in your printer. But don't worry if it's on the left, it will eventually find its way to the other side...

If you're contemplating this little trick, I suggest you do not wear your wife's white cotton gloves! In other words, if you aren't careful, this can be a bit messy. With due caution you get ink only on yourself, two kids (neighbors, of course), the cat and one parakeet.

Some question arises about the feasibility of all this. I go thru a carton of paper about every 90 days (3500 sheets) and if I run into any problems, I'll let you know. I'm reasonably sure that the lubrication qualities of the Centronics replacement will be compatable with the EPSON and at this point in time, I don't feel like paying thru the nose for EPSON cartridges!

Any rebuttals out there in printer land?

A CABINET FOR YOUR APPLE

by Harvey Marmel

Are you happy with the physical arrangement of your computer? I wasn't, because I had placed it make-shift on a typing table. It didn't look good, and there were operational problems related with the physical arrangement. So, a search began; what could be done to improve it's lot- without great expense, of course.

I remembered an old TV set which did not work, and which Zenith said, "forget it, it isn't worth fixing". It was a 25 inch console, and I studied it and measured it and measured my Apple, the disk drive, the monitor and the printer I hoped to have soon. The dimensions matched well enough to encourage me to make a sketch of possible cabinet modifications to make it into a home for my Apple.

Luck was with me in several important aspects, but I believe that any cabinet that has sufficient volume can be made suitable if the designer is not overly rigid about the placement of the components. In my case, the speaker opening was separated from the picture tube opening by a column that created a 6 1/2 inch wide separation. With my 6 inch wide disk drive in mind, I placed a 1 x 8 inch board behind the column to complete the segregation. The column was slotted in two places 5 inches apart to accomodate two five inch disk drives (I will get that second drive one day!), and a pair of 1 x 1 x 11 inches long wood strips were attached to the side wall to complete the support for two pieces of perforated hard board. Perforated was chosen to improve air circulation, even though it does not appear to be needed there.

The Apple could only be shelf-mounted (because the cabinet top which is at desk level, is too high for typing. It is possible to either permanently fix a shelf as a computer rest, or to provide a sliding shelf that could be retracted when not in use. The opening available was more than adequate except the depth. The cabinet is 16 inches deep and so is the computer, leaving nothing for cables. So the computer cannot be jammed all the way back. A stop was installed behind one side of the shelf to insure a minimum of clearance. The shelf itself is an old piece of kitchen cabinet waiting for a use, and it was supported by 1 x 1 x 15 inch strips. A wood cleat was attached under the front lip to simplify moving the shelf. Caution and careful planning are vital to be sure that none of the Apple cables can get caught or jam when the shelf is being moved, and that the shelf movement does not exceed the length of the cables to the disk drive or printer.

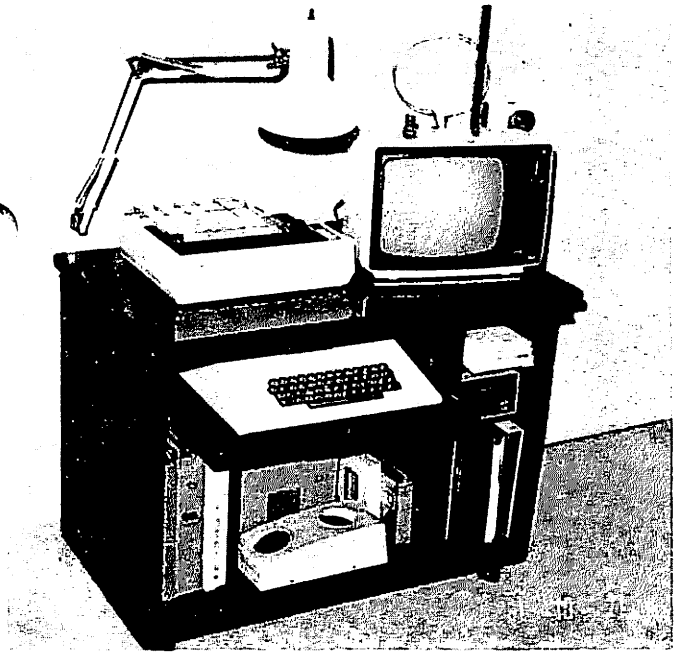
The infamy of the Apple power switch led to the installation of a power center under the shelf. It includes a switch to control the computer and two other items. I have the printer plugged in and have a spare outlet. This power center is controlled by another which is mounted at the top of the cabinet rear. It includes a switch, an indicator light and six service outlets. This unit also powers the flexible arm lamp and the TV set that can be used either as a monitor or...a TV!

The TV is a 12 inch BW set and the lamp is a standard flexible arm unit that is mounted on the back of the cabinet. My Epson MX80 printer and the TV fit nicely on the 18 x 36 inch cabinet top surface. One of the advantages of a TV cabinet is the removable back which provides access to anything I happen to need to reach. It's secure enough to avoid inadvertent or undesirable access, and yet available when needed. Of course, the printer paper was looming as a problem until I realized that the picture tube protective bubble on the back was easily removable. When removed, it provided an opening through which to feed the paper! A 3/8 inch diameter plastic rod was bolted to the back across the opening to guide the paper.

It should be obvious that a setup like this would be quite a hassle to move for access to the back, etc. Therefore, a set of ball casters were mounted on the bottom, and it rolls easily. Speaking of the bottom, most TV bottoms are full of holes, metal grills for ventilation, and other protuberances. The removable cleats and similar items were removed and a piece of the 1/4 inch perforated

hardboard was fitted to the bottom to provide more attractive and functional base on which to rest my box of paper, and notebooks of disks and programs.

A Shopsmith combination saw, drill press, etc was the primary tool. A reversible variable speed portable drill mad the many screws and screw openings much easier to master. The total cost including power centers, lamp, and other purchased materials was just under forty dollars. Of course the cabinet was free, and the few pieces of scrap lumber might will usually be available.



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PREZ SEZ!

by Eric Stral

To begin my first column as President, I think it is only right to thank the past officers and the many volunteers that gave of their time, during the past year. At last month's meeting plaques were given to last year's elected officers, as recognition of their efforts. It is only appropriate to praise the newsletter editor in his own creation. This unsung hero of drudgery, paste-ups and unyielding deadlines, has always come up with interesting and informative issues. Thank you Terry!!!

Now to the subject of this column-PARTICIPATION. This is not just my group, this organization will only be as good as its participants. What we need are ideas, and nobody has a monopoly in that department. The officers meetings, on the Tuesday following the main meeting is the forum for ideas that will help the group progress. The business of the group is conducted at these meetings.

Just as the main meetings provide informative presentations, the officers meetings provide the substance of the group. However, the quality of the main meetings is dependent upon the quality of program ideas presented at the officers meetings. This is your opportunity to tell the officers and committee chairpeople what they are doing right or wrong, and how to right the wrongs. I encourage you to attend these meetings.

The next meeting will be March 9, 1982 at 7:00pm, at the Hoffman Estates Park District field house in the boardroom. The field house is located just west of Golf road (Rt. 58) on Higgins Road (Rt. 72). If you cannot attend, but have good ideas please feel free to call me at home, before 10:00pm (please!).

Now, for the lighter side! Many of you have spouses that are computer widows or widowers. We computer enthusiasts try never to be far from a computer, but what can we do on a vacation. If we take our beloved computers with us, we may become divorcees. The compromise has finally come-computer vacations. Several fine Mexican resorts have computer rooms to go with sun, sand and surf--the best of both worlds. One such resort is Club Med in Mexico. See your travel agent for details and have a nice vacation.

A BOOK PAST DUE

by Jim Kelly

Ken Rose's enthusiasm for Leroy Finkel and Jerald Brown's book "Apple Basic : Data File Programming" (published by Wiley) is well deserved.

The great asset that this book has is its examples with documentation on them. Examples on editing routines; examples on creating sequential and random access files; examples on reading from, writing to and changing information in records of the two types of text files. Even an example of a tag file, a way to speed up the searching for information in files. The progressive method used by the authors to present the materials is much appreciated, even by people like myself who are relatively new at programming Apples.

THANKS KEN!

Ed note- Mr. Finkel will be keynote speaker at the computer conference (The Computer Challenge: A Revolution in Classroom and Home) being held at Barrington High School, March 13.

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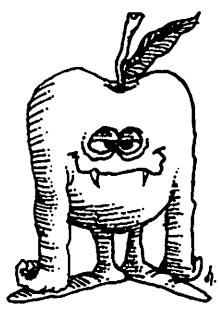
SPECIAL INTEREST GROUP NEWS

EDUCATION SIG MEETING

The March meeting will be held Mar 18, 7 pm at 79 Greenbriar East, Deerfield. Call Phyllis Geren at 945-2624 for directions etc. Don Rausch of Micro-Ideas will demonstrate the Karel simulator. This Robot/Program is based on "Karel, The Robot: A Gentle Intorduction to the Art of Programming by Richard Pettis.



Reprinted from
Apple Gram (the Apple Corps, Dallas Texas)
August 21, 1981

Apple Medical User's Group International

After a number of months of tracking down leads, the Apple Medical User's Group has been found to be alive and well. The group is based in California and publishes a monthly newsletter of 12 pages or so. Its goal is to provide the lastest information from around the world which would be on interest to Apple users interested in medical topics. Group rates for joining the User's Group are available ($25 per year for an individual, $15 per year for 10-25 persons...). So in an attempt to see if we can form a group, we are spreading the word. Please contact me if you want more information or are interested in participating in a Dallas Group:

Dr. Lynn Peterson
Department of Medical Computer Science
University of Texas Health Science Center
Dallas, TX 75235
(214) 688-3774

SIG INFORMATION CONTACT LIST:

Business———— Eric Stral 312-885-1941

Education----------Phyllis Geren 312-945-2624, Ann Baldridge 312-529-2023

Stock, Options, Commodities-----Harry Maram 312-764-1847, John Hoffmann 312-998-0144

Pascal————————Ken Nestle 312-620-7745

Modem————————Terry Cronin 312-289-6392

NEWS RELEASE
JANUARY 20,1982

THE COMPUTER CHALLENGE: A REVOLUTION IN CLASSROOM AND HOME

The Computer Challenge: A Revolution in Classroom and Home sponsored by Computer Town Barrington in cooperation with Project Micro-Ideas, the Institute for Educational Research, Northern Illinois Apple Users Group and Barrington AAUW.

The computer conference is a volunteer effort to be held Saturday, March 13, 1982 at the Barrington High School, 616 West Main Street, Barrington, Illinois.

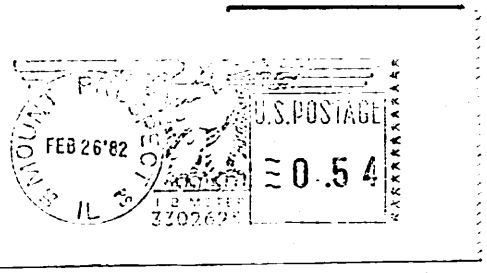
Choose from over 40 speakers and demonstrations. The keynote speaker is LeRoy Finkel, an 18-year classroom veteran and co-author of six books including "BASIC for Home Computers". The conference will emphasize educational topics and home-use subjects. Information about hardware, software and services will be brought together with an exciting array of commercial exhibits and practical demonstrations of computer uses in school and home.

Registration fee (including lunch) is $15. For additional information, phone (312) 658-4710. Please make checks payable to: Computer Town Barrington, Inc. Mail registration to:Computer Town Barrington, Inc., 322 West Lake Street, Barrington, Illinois, 60010. Deadline: March 5th.

1982 MARCH 1982

SUN	MON	TUE	WED	THU	FRI	SAT
FIRST QUARTER 2	1	2	3	4	5	NIAUG GENERAL MEETING
7	8	9	DEADLINE FOR ARTICLES IN HARVEST	11	12	13
14	15	16	17	STOCK,OPTIONS, COMMODITIES,SIG EDUCATION SIG	19	BUSINESS SIG
21	22	23	24	25	26	27
28	29	30	31	FULL MOON 9	LAST QUARTER 17	NEW MOON 25

THE HARVEST NEWSLETTER
N.I.A.U.G.
1015 S. RIDGE AVE,
ARLINGTON HEIGHTS, IL.
60005.



MICHAEL L. ROBINS
1300 S. ELMHURST RD.
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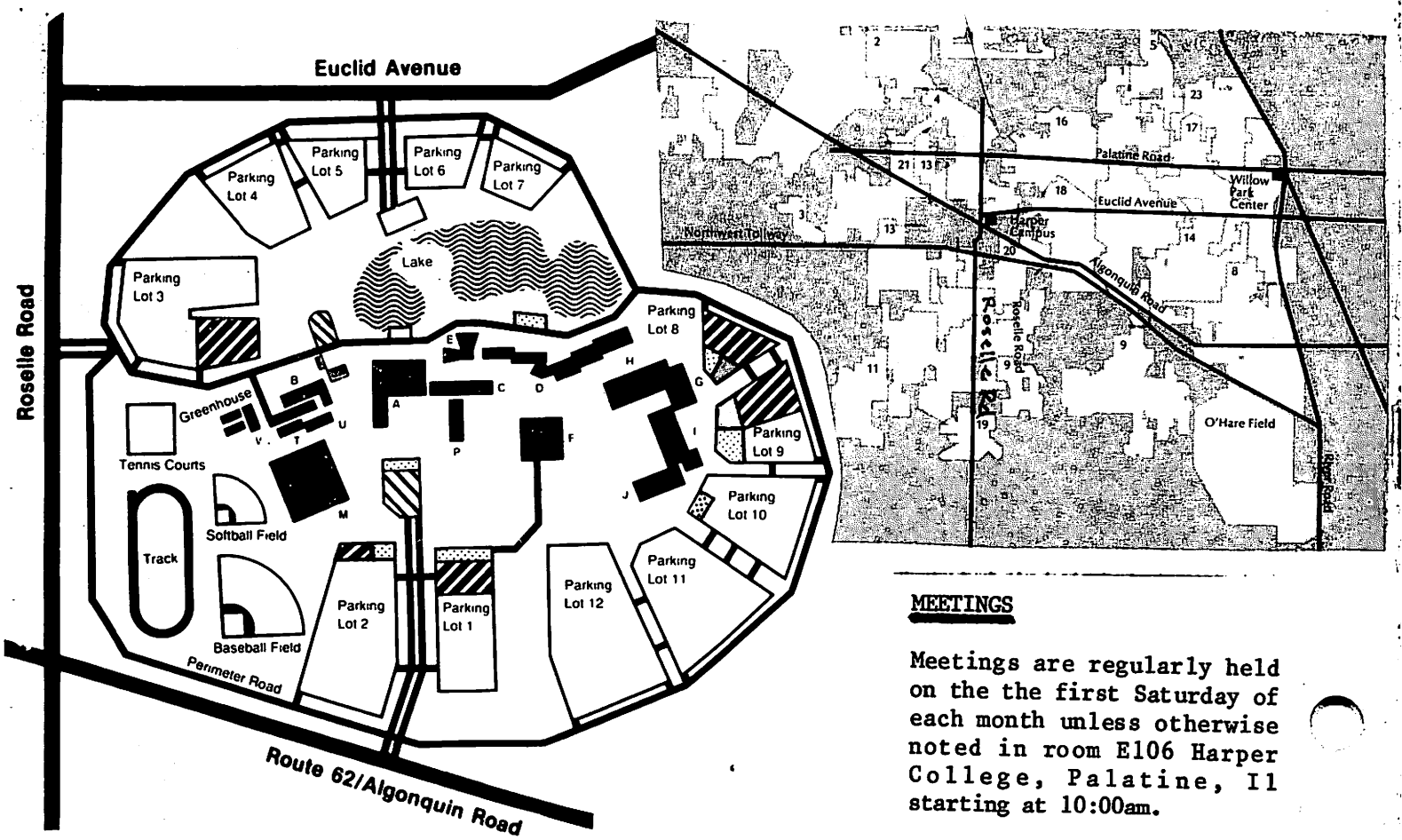

MEETINGS

Meetings are regularly held on the the first Saturday of each month unless otherwise noted in room E106 Harper College, Palatine, Il starting at 10:00am.